

Second Supplement to "A Catalog of the Mosquitoes of the World"

(Diptera: Culicidae)

Ronald A. Ward¹
Department of Entomology
Walter Reed Army Institute of Research
Washington, DC 20307-5100

ABSTRACT. Additions and changes in the taxonomy of mosquitoes from 1978 through 1983 are documented with the pertinent literature citations. During this five year period there were descriptions of one new genus, two new subgenera and 75 new species or subspecies. Two subgenera were elevated to generic status, 3 subgenera and 18 species or subspecies were removed from synonymy. The status of 87 taxa, including synonyms, were changed by transfers in generic or subgeneric status.

INTRODUCTION

Since the publication of a supplement to the world catalog of mosquitoes by Knight (1978b), numerous changes have been made in the placement of taxa and many new species have been described. There are no imminent plans for publication of a new edition of the world mosquito catalog, so it is advisable to prepare periodic supplements. This supplement covers the systematic literature from January 1, 1978 through December 31, 1983. Several earlier references are cited which were omitted in the previous catalog and supplement. Papers dated 1983, but not issued until 1984 are included and are designated 1983 (1984).

The basic arrangement of this supplement is similar to that of Knight and Stone (1977) and Knight (1978b) with the exclusion of the sections on general and important publications, changes in distribution records and marginal references to pages in the 1977 catalog. As in the past, complete information is given for new taxa, type-localities, type-depositories, life history stages described, synonymies and realignment of taxa.

Valid taxa are set in italicized type while synonyms are underlined and in roman type. The life history stages described in the original paper are indicated by the symbols: ♂ (male), ♀ (female), P (pupa), L (larva) and E (egg). An asterisk (*) to the right of the symbols indicates an accompanying illustration. Type-depositories are referenced by a three or four letter abbreviation. With four exceptions mentioned at the end of this paper, the full locations for types are cited by Knight and Stone (1977) and Knight (1978b).

¹ The views of the author do not purport to reflect the position of the Department of the Army or of the Department of Defense.

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 1984		2. REPORT TYPE		3. DATES COVERED 00-00-1984 to 00-00-1984	
4. TITLE AND SUBTITLE Second Supplement to 'A Catalog of the Mosquitoes of the World' (Diptera: Culicidae)				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Walter Reed Army Institute of Research, Department of Entomology, Washington, DC, 20307				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT see report					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 44	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

The following individuals provided much useful assistance in the preparation of the supplement: Ralph E. Harbach, Bruce A. Harrison, Yiau-Min Huang, James B. Kitzmiller, E.L. Peyton, John F. Reinert, Helen Sollers-Riedel, George C. Steyskal, Thomas J. Zavortink and Olimpia Areizaga.

Family Culicidae

Subfamily Anophelinae

Genus *Anopheles* Meigen

Subgenus *Anopheles* Meigen

barberi Coquillett

niger Herrick 1905. Ward 1979:132 (*lapsus calami* rather than *nomen nudum*; synonymy).

barbumbrosus Strickland and Chowhury

pseudumbrosus Haga 1930:364 (♀, L). (not listed by Knight and Stone (1977) or Knight (1978b)). Ward 1979:132 (synonymy).

engarensis Kanda and Oguma

1978:46 (♂, ♀, P, L). Type-loc: Engaru, Hokkaido Isld., Japan (BM).

fuscicolor Van Someren

ssp. *soalalaensis* Grjebine

White 1980:116 (from variety of *fuscicolor*).

koreicus Yamada and Watanabe

var. hisaoe Tsuchimoto 1944 (1948). Kamimura 1966:8 (synonymy).

maculipennis Meigen

alexandraeschingarevi Shinagarev 1928. White 1978:17 (corrected specific epithet, Art. 26, ICZN 1964).

martinius Shinagarev

White 1978:21 (from synonymy with *sacharovi*).

relictus Shinagarev 1928. White 1978:21 (synonymy transfer from *saccharovi* to *martinius*).

elutior Martini 1931. White 1978:21 (synonymy transfer from *saccharovi* to *martinius*).

mengalagensis Ma

1981:277 (♂*, ♀*). Type-loc: Mengalang, Yunnan, China (AMMS).

obscurus (Grünberg)

nowlini Evans 1932. White 1980:116 (from variety of *obscurus* to synonymy).

saperoi Bohard and Ingram

ssp. *ohamai* Ohama

Tanaka, Saugstad and Mizusawa 1975:210 (to subspecies of *saperoi*).

sicaulti Roubaud

White 1978:24 (from synonymy with *labranchiae*), 25 (neotype design.).

veruslanei Vargas

1979:87 (♀*). Type-loc: Quintana Roo, Yucatán, Mexico (ISET).

Subgenus *Cellia* Theobald

aconitus Dönitz

albirostris Theobald 1903. Harrison 1980:38 (lectotype design.).

annulatus Haga

Ward 1979:130 (authorship changed from De Rook to Haga).

azevedoi Ribiero

deaconi de Meillon and Eeden 1976. White 1980:117 (synonymy).

culicifacies Giles

Harrison 1980:55 (lectotype design.).

ssp. adenensis Christophers 1925. Beidas and Gillies 1980:172 (E*).

Harrison 1980:52 (synonymy), 56 (lectotype design.).

listoni Giles 1901. Harrison 1980:56 (lectotype design.).

dirus Peyton and Harrison

1979:41 (♂, ♀*, P*, L*). Type-loc: Ban Bu Phram, Prachin Buri, Thailand (USNM).

domicola Edwards

White 1980:118 (unjustified emend. to *domicolus*).

flavirostris (Ludlow)

merak(cohesia) Mangkoewinoto 1919. Harrison 1980:40 (synonymy transfer from *minimus* to *flavirostris*).

funestus Giles

imerinensis Monier and Treillard 1935. White 1980:118 (from variety of *funestus* to synonymy).

jeyporiensis James

jeyporensis Theobald 1903. Harrison 1980:65 (junior secondary homonym), 70 (lectotype design.).

var. candidiensis Koidzumi 1924. Harrison 1980:66 (synonymy).

minimus Theobald

christophersi Theobald 1902. Harrison 1980:83 (lectotype design.).

formosaensis I Tsuzuki 1902. Harrison 1980:83 (lectotype design.).

natalensis (Hill and Haydon)

var. *multicinctus* Edwards

White 1980:120 (as form, from synonymy with *natalensis*).

quadriannulatus (Theobald)

ssp. *davidsoni* Ribiero, Ramos, Pires and Capela

1979:75 (♂*, ♀*, P*, L*). Type-loc: Ribiera do Mangue, Santiago Isld., Cape Verde Republic (IHMT).

takasagoensis Morishita

Peyton and Harrison 1980:337 (from synonymy with *balabacensis*).

wellcomei Theobald

ssp. *ungujae* White

Knight 1978b:11 (to species, in error).

Subgenus *Kerteszia* Theobald

gonzalezrinconesi Cova García, Pulido F. and Escalante de Ugueto

1977a:140 (♂*, ♀*, P*, L*). Type-loc: Mata Mulas, Municipio Delicias, Táchira, Venezuela (DERM).

rollai Cova García, Pulido F. and Escalante de Ugueto

1977b:241 (*nomen novum* for *hilli* Cova García, Pulido F. and Escalante de Ugueto 1976, not *hilli* Woodhill and Lee 1944).

hilli Cova García, Pulido F. and Escalante de Ugueto 1976 (junior homonym).

Subgenus *Nyssorhynchus* Blanchard

albimanus Wiedemann

gorgasi Dyar and Knab 1907. Faran 1980:14 (to *nomen nudum*, unjustified action).

allopha (Peryassu)

Faran and Linthicum 1981:4 (from synonymy with *albitarsis*).

aquasalis Curry

deltaorinoquensis Cova García, Pulido F. and Amarista M.
1977:150(♂*, ♀*, P*, L*, E*). Type-loc: Sucre and Monagas states, Delta Amacuro Federal Territory, Venezuela (DERM).
Faran 1980:75 (synonymy).

evansae (Brèthes)

Faran 1980:130 (to *nomen dubium*, as *evansi*). Faran and Linthicum 1981:4 (from *nomen dubium* to valid species). Peyton et al. 1983:70 (emend. to *evansae*).

norroestensis Galvão and Lane 1937. Faran and Linthicum 1981:4 (synonymy).

osvaldoi var. metcalfi Galvão and Lane 1937. Faran 1981:87 (synonymy).

osvaldoi (!) var. ayrozai Unti 1941. Faran 1981:87 (synonymy).

clarki Komp 1942 (1943). Faran 1981:88 (synonymy).

strodei Root

Faran 1980:123 (from synonymy with *evansi*).

ramosi Unti 1940. Faran 1980:123 (from variety of *evansi* to synonymy with *strodei*).

albertoi Unti 1941. Faran 1980:123 (from variety of *evansi* to synonymy with *strodei*).

arthuri Unti 1941. Faran 1980:123 (from variety of *evansi* to synonymy with *strodei*).

artigasi Unti 1941. Faran 1980:123 (from synonymy with *arthuri* to synonymy with *strodei*).

lloydi Unti 1941. Faran 1980:123 (from variety of *evansi* to synonymy with *strodei*).

triannulatus (Neiva and Pinto)

bachmanni Petrocchi 1925. Faran 1980:141 (from subspecies of *triannulatus* to synonymy with *triannulatus*).

davisi Paterson and Shannon 1927. Faran 1980:141 (synonymy transfer from *bachmanni* to *triannulatus*).

perezi Shannon and Del Ponte 1928. Faran 1980:141 (synonymy transfer from *bachmanni* to *triannulatus*).

trinkae Faran

1979:27 (♂*, ♀*, P*, L*). Type-loc: 1.5 km S of Puyo, Pastaza, Ecuador (USNM).

Name Rejected

Anopheles subpictus var. *vadakadiensis* Doraisamy 1963. Reuben and Suguna 1983:118 (name rejected, as variety was described after 1960).

Subfamily Culicinae

Tribe Aedeomyiini

Genus *Aedeomyia* TheobaldSubgenus *Lepiothauma* Enderlein*africana* Neveu-Lemaire

White 1980:123 (from subgenus *Aedeomyia*).

pauliani Grjebine

White 1980:123 (from subgenus *Aedeomyia*).

Tribe Aedini

Genus *Aedes* MeigenSubgenus *Aedes* Meigen*esoensis* Yamada

ssp. *rossicus* Dolbeskin, Gorickaja and Mitrofanova

Peus 1972:189 (to subspecies of *esoensis*).

Subgenus *Aedimorphus* Theobald*cumminsii* (Theobald)

issp. *mediopunctata* (Theobald)²

² *Culicada mediopunctata* Theobald 1909 is a junior secondary homonym of *mediopunctatus* Theobald 1905 in *Aedes* (*Stegomyia*). A new name is required, but may not be proposed until the status of this form is clarified. According to ICZN, names of varieties or other infraspecific categories proposed after 1960 are not valid.

White 1980:125 (as form, emend. from *mediopunctatus*).

leesoni Edwards

ssp. *vernus* Lewis

White 1980:126 (emend. from *verna*).

nocturnus (Theobald)

Lee, Hicks, Griffiths, Russell and Marks 1982:32 (from synonymy with *vexans*).

tricholabis Edwards

ssp. *bwamba* Van Someren

White 1980:127 (unjustified emend. to *bwambae*).

Subgenus *Belkinius* Reinert

Belkinius Reinert 1982:102. Type-species: *aurotaeniatus* Edwards

aurotaeniatus Edwards

Reinert 1982:105 (from subgenus *Paraedes*).

Subgenus *Diceromyia* Theobald

coulangesi Rodhain and Boutonnier

1982 (1983):193 (?). Type-loc: Ampijoroa, Madagascar (PIP).

madagascarensis Van Someren

Rodhain and Boutonnier 1982b (1983b):197 (from subgenus *Finlaya*).

meronephada (Dyar and Shannon)

Huang 1978:335 (from subgenus *Stegomyia*).

sylvaticus Brunhes

1982 (1983):316 (♂*). Type-loc: edge of Onive River, about 10

km upstream from Ambohitralanana, Diego-Suarez, Madagascar (SSC).

tiptoni Grjebine

Ravaonjanahary 1978:103 (from subgenus *Aedimorphus*).

Subgenus *Edwardsaedes* Belkin

antuensis Su, Wang and Li

1978:439 (♂*, ♀, L*). Type-loc: Antu Xian, Jilin Province, China (type-depository not mentioned).

pingpaensis Chang

1965:397 (♂*, ♀*, L*). Type-loc: Pingpa, Kweichow Province, China (IPD).

Subgenus *Finlaya* Edwards

alius Lien

Meng 1981:246 (from subspecies of *pulchriventer*).

harinasutai Knight

1978a:106 (♂*, ♀*, P*, L*). Type-loc: Ban Nithae, Kanchanaburi, Thailand (USNM).

japonicus (Theobald)

var. tokushimaensis Tanimura 1952. Sasa and Kamimura 1971:16 (synonymy).

var. bisanensis Suzuki, Tanimura, Miyagawa and Murata 1953. Sasa and Kamimura 1971:16 (synonymy).

ssp. *shintienensis* Tsai and Lien

Tanaka, Mizusawa and Saugstad 1979:317 (from synonymy with *japonicus*).

ssp. *amamiensis* Tanaka, Mizusawa and Saugstad

1979:312 (♂, ♀*, L). Type-loc: Mt. Yuwan, Amami Ōshima, Ryukyus, Japan (NMST).

ssp. yaeyamensis Tanaka, Mizusawa and Saugstad

1979:313 (♂, ♀, L). Type-loc: near Yonehara, Ishigaki Isld., Ryukyus, Japan (NMST).

nishikawai Tanaka, Mizusawa and Saugstad

1979:356 (♂, ♀, L*). Type-loc: Mt. Yuwan, Amami Ōshima, Ryukyus, Japan (NMST).

versicolor (Barraud)

Danilov 1978:82 (from subgenus *Ochlerotatus*; from variety of *pulchritarsis*).

wellmani (Theobald)

White 1980:128 (emend. from *wellmani* to original spelling).

Subgenus *Isoaedes* Reinert

Isoaedes Reinert 1979:144. Type-species: *cavaticus* Reinert.

cavaticus Reinert

1979:148 (♂, ♀, P*, L*). Type-loc: Gang Lawa Cave, Huai Bong Ti, Kanchanaburi, Thailand (USNM).

Subgenus *Levua* Stone and Bohart

dufouri Hamon

Danilov 1981a:86 (from subgenus *Ochlerotatus*).

fryeri (Theobald)

Danilov 1981a:86 (from subgenus *Ochlerotatus*).

Subgenus *Ochlerotatus* Lynch Arribálzaga

albineus Séguy

Danilov 1979:29 (from synonymy with *caspius*).

stramineus Dubitzsky 1970. Danilov 1979:29 (synonymy).

flavidorsalis Luh and Lee 1975. Danilov 1979:29 (synonymy).

ambreensis Rodhain and Boutonnier

1983:826 (♀). Type-loc: Mt. Ambre forest, 35 km S of Antseranana, Madagascar (PIP).

burjaticus Kuchartshuk

1973:98 (♂*, ♀, L). Type-loc: Khuzir, Buryat Mongol ASSR, USSR (LU).

cyprioides Danilov and Stupin

1982:824 (♂*, ♀*, L*). Type-loc: : Urte-Kargane (12 km SW Kubukhay), Onon Dist., Chita Prov., Siberia, USSR (IMP).

gutzevichi Dubitsky and Deshevykh

1978:177 (♂*, ♀, L*). Type-loc: upper course of Ili River, near Borokhudzir, Kazakhstan, USSR (KZI).

hexodontus Dyar

ssp. *hokkaidensis* Tanaka, Mizusawa and Saugstad

1979:286 (♂, ♀*, L). Type-loc: Ōnuma-kôen, Hokkaido, Japan (NMST).

impiger (Walker)

ssp. *daisetsuzanus* Tanaka, Mizusawa and Saugstad

1979:271 (♂*, ♀*, L*). Type-loc: Yokomambetsu, Mt. Daisetsu, Hokkaido, Japan (NMST).

leucomelas (Meigen)

implicatus Vockeroth 1954. Mezenov 1980:206 (synonymy).

niphadopsis Dyar and Knab

simanini Gutsevich 1966. Danilov 1981b:36 (synonymy).

sergievi Danilov, Markovich and Proskuryakova

1978:44 (♂*, ♀*, L*). Type-loc: Shagopar, Tuva ASSR (South Siberia), USSR (ZIL).

Subgenus *Paraedes* Edwards*chrysoscuta* (Theobald)

Reinert 1981:17 (from synonymy with *ostentatio*).

Subgenus *Skusea* Theobald*cartroni* (Ventrillon)

Brunhes 1977b:166 (from synonymy with *pembaensis*).

moucheti Ravaonjanahary and Brunhes

1977:213 (♂*). Type-loc: Maradoka, Nosy-Bé Isld., Madagascar (IRSM).

Subgenus *Stegomyia* Theobald*bromeliae* (Theobald)

Huang 1979b:226 (from synonymy with *simpsoni*).

daitensis Miyagi and Toma

1980 (1981):428 (♂*, ♀*, P*, L*). Type-loc: Zaisho, Minami Daito Islds., Ryukyus, Japan (NMST).

flavopictus Yamada

ssp. *downsi* Bohart and Ingram

Tanaka, Mizusawa and Saugstad 1979:389 (to subspecies of *flavopictus*).

ssp. *miyarai* Tanaka, Mizusawa and Saugstad

1979:390 (♂*, ♀*, L*). Type-loc: Mt. Banna, Ishigaki Isld., Ryukyus, Japan (NMST).

kesseli Huang and Hitchcock

1980:23 (♂*, ♀*, P*, L*). Type-loc: Tafahi Isld., Tonga (USNM).

ledgeri Huang

1981:96 (♂*, ♀*, P*, L*). Type-loc: Makonde, Sibasa, Transvaal, South Africa (USNM).

lilii (Theobald)

Huang 1979b:226 (from synonymy with *simpsoni*).

neoafricanus Cornet, Valade and Dieng

1978:228 (♂*, ♀*). Type-loc: 10 km NW Kedougou, Département de Kédougou, Senegal (SSC).

platylepidus Knight and Hull

Huang 1979a:2 (from subgenus *Diceromyia*).

sibiricus Danilov and Filippova

1978:170 (♂*, ♀, L*). Type-loc: Kedrovaya Pad' Res., Maritime Territory, USSR (ZIL).

simpsoni (Theobald)

Huang 1979b:222 (lectotype design.).

tongae Edwards

ssp. tabu Ramalingam and Belkin

Huang and Hitchcock 1980:45 (to subspecies of *tongae*).

wadai Tanaka, Mizusawa and Saugstad

1979:400 (♂*, ♀*, L*). Type-loc: Kitafukurozawa, Chichijima, Ogasawara Islds., Japan (NMST).

Nomina Dubia

rimandoi Basio

Huang 1979a:27 (type non-existent; unrecognizable; transferred from subgenus *Stegomyia* to *nomen dubium*).

Genus *Eretmapodites* Theobald*oidipodeios* Grahamoedipodius Edwards 1912. White 1980:142 (unjustified emend.).Genus *Heizmannia* LudlowSubgenus *Heizmannia* Ludlow*kana* Tanaka, Mizusawa and Saugstad

1979:249 (♀*). Type-loc: Mt. Yuwan, Amami Ōshima, Ryukyus, Japan (NMST).

Tribe Culicini

Genus *Culex* LinnaeusSubgenus *Acallyntrum* Stone and Penn*axillicola* Steffan1979:133 (♂*, ♀, P*, L*); as *axillicolus*, emend. here by Ward. Type-loc: Pukamil Hamlet, Minj, Western Highlands Dist., Papua New Guinea (BBM).*bougainvillensis* Steffan

1979:138 (♂*). Type-loc: Bougainville Isld., Solomon Islds. (USNM).

Subgenus *Anoedioporpa* Dyar*conservator* Dyar and Knabpaganus Evans 1923. Berlin and Belkin 1980:37 (synonymy).

damascenoi Duret

menui Clastrier 1971. Berlin and Belkin 1980:43 (synonymy).

originator Gordon and Evans

surukumensis Anduze 1941. Berlin and Belkin 1980:52 (from synonymy with *conservator* to synonymy with *originator*).

restrictor Dyar and Knab

Berlin and Belkin 1980:30 (from subgenus *Microculex*).

Subgenus *Barraudius* Edwards

inatomii Kamimura and Wada

Tanaka, Mizusawa and Saugstad 1979:234 (from subspecies of *modestus*).

Subgenus *Carrollia* Lutz

insigniforceps Clastrier and Claustre

1978a:359 (♂*). Type-loc: Forêt du Gallion, French Guyana (MNHP).

Subgenus *Culex* Linnaeus

annulus Theobald

Chen 1980:436 (from synonymy with *vishnui*).

cheni Ho 1963. Chen 1980:436 (synonymy).

permixtus Hsieh and Liao 1956. Chen 1980:436 (synonymy).

banksensis Maffi and Tenorio

1977:503 (♂P*, ♀, P*, L*). Type-loc: Qeteqavit, Gava Isld., Banks Islds., New Hebrides (BBM).

comorensis Brunhes

1977a:136 (♂*, ♀, P*, L*). Type-loc: near M^eJamaoué, Anjouan

Islid., Comores (SSC).

ssp. kartalae Brunhes

1977a:140 (♂*, ♀, L). Type-loc: Kartala Volcano, Grande Comore Islid., Comores (SSC).

ethiopicus Edwards

maculipesarabiensis Patton 1905. White 1980:134 (synonymy).

machadoi Mattos, Guedes and Xavier

1978:31 (♂*, P*, L*). Type-loc: "Sítio do Sr. Alexandre Ribiero da Silva", Florestal County, Minas Gerais, Brazil (CPRR).

maxi Dyar

oswaldoi Forattini 1965. Harbach, Peyton and Jakob 1983 (1984):310 (synonymy).

pajoti Ramos and Ribiero

1981 (1982):176 (♂*, ♀*, P*, L). Type-loc: Mumbondo, Angola (IHMT).

tianpingensis Chen

1981:426 (♂*, ♀*, L*). Type-loc: Tianpingsham, Guangxi Zhuang Autonomous Region, South China, China (GMC).

toviiensis Klein, Rivière and Séchan

1983 (1984):72 (P*, L*). Type-loc: Tovi Plateau, Nuku-Hivi Islid., Marquesas Islids. (SSC).

univittatus Theobald

ataeniatus Theobald 1911. White 1980:137 (synonymy).

Subgenus *Eumelanomyia* Theobald

foliatus Brug

chungkiangensis Chang and Chang 1974. Meng and Chen 1980:161 (synonymy).

hayashii Yamada

ssp. ryukyuanus Tanaka, Mizusawa and Saugstad

1979:190 (♂, ♀, L). Type-loc: near Shirahama, Iriomote Isld., Ryukyus, Japan (NMST).

inconspicuus (Theobald)

nyangae Galliard 1931. White 1980:139 (synonymy).

miaolingensis Chen

1982:312 (♂*, ♀*, P*, L*). Type-loc: Guiyang, Guizhou Prov., China (GMC).

Subgenus *Lophoceraomyia* Theobald

curtipalpis (Edwards)

ssp. *sumatranus* Brug

Meng and Chen 1980:163 (to subspecies of *curtipalpis*).

gudouensis Chang, Zhao, Hang and Chen 1975. Meng and Chen 1980:162 (from subgenus *Mochthogenys*, = *Eumelanomyia*; synonymy).

minor (Leicester)

harpagophallus Wang and Feng 1964. Meng and Chen 1980:162 (synonymy).

Subgenus *Lutzia* Theobald

shinonagai Tanaka, Mizusawa and Saugstad

1979:245 (♂*, ♀, L*). Type-loc: Kitafukurozawa, Chichijima, Ogasawara Islds., Japan (NMST).

Subgenus *Melanoconion* Theobald

adamesi Sirivanakarn and Galindo

1980:26 (♂*, ♀*, P*, L*). Type-loc: across canal from summit, "Empire Firing Range", Canal Zone, Panama (USNM).

bastagarius Dyar and Knab

thomasi Evans 1924. Sirivanakarn 1982 (1983):274 (synonymy).

contei Duret

seneveti Clastrier 1970. Sirivanakarn 1982 (1983):274 (synonymy).

crybda Dyar

Sirivanakarn and Belkin 1980:11 (from synonymy with *epanastasis*).

epanastasis Dyar

pseudotaeniopus Galindo and Blanton 1954. Sirivanakarn and Belkin 1980:11 (synonymy).

invocator Pazos

Sirivanakarn 1978:240 (from synonymy with *erraticus*).

lopesi Sirivanakarn and Jakob

1979:140 (♂*). Type-loc: Porto do Ribiera, Iguape, São Paulo, Brazil (USNM).

pedroi Sirivanakarn and Belkin

1980:12 (♂*, ♀*, P*, L*). Type-loc: Juan Mina (0.5 km S of Rio Chagres), Canal Zone, Panama (USNM).

penai Sirivanakarn

1979:135 (♂*). Chapare, San Antonio, Bolivia (USNM).

phlabistus Dyar

kerri Duret 1968. Sirivanakarn 1982 (1983):274 (synonymy).

portesi Sénevet and Abonnenc

cayennensis Floch and Abonnenc 1945. Sirivanakarn and Dégallier 1981 (1982):154 (synonymy).

sacchettae Sirivanakarn and Jakob

1981 (1982):192 (♂*, ♀). Type-loc: Cananeia (Brucouha), São Paulo, Brazil (FH).

saramaccensis Bonne-Wepster and Bonne

implicatus Sénevet and Abonnenc 1939. Sirivanakarn 1982 (1983):274

(from synonymy with *nigrescens*).

simulator Dyar and Knab

venezuelensis Anduze 1948 (1949). Sirivanakarn 1982 (1983):274
(synonymy).

taeniopus Dyar and Knab

opisthopus Komp 1926. Sirivanakarn and Belkin 1980:9 (synonymy).

Subgenus *Neoculex* Dyar

johni Cova García, Pulido F. and Escalante de Ugueto

1979:21 (♂*, P*, L*). Type-loc: La Mucuy, Municipio Tabay,
Mérida, Venezuela (DERM).

Subgenus *Tinolestes* Coquillett

breviculus Sénevet and Abonnenc

Sirivanakarn 1982 (1983):272 (from subgenus *Melanoconion*).

cauchensis Floch and Abonnenc

Sirivanakarn 1982 (1983):272 (from subgenus *Melanoconion*).

Nomina Dubia

Asebeomyia Aiken

Sirivanakarn 1982 (1983):274 (transfer from synonymy with
subgenus *Melanoconion* to nomen dubium on status of type-
species, *epirus*).

chrysothorax Peryassu

Sirivanakarn 1982 (1983):273 (transfer to nomen dubium from
subgenus *Melanoconion*; probably subgenus *Microculex*).

epirus Aiken

Sirivanakarn 1982 (1983):273 (transfer to nomen dubium from
subgenus *Melanoconion*; probably subgenus *Culex*).

Tribe Culisetini

Genus *Culiseta* FeltSubgenus *Culiseta* Felt*subochrea* (Edwards)

Ribiero, Ramos, Capela and Pires 1977:55 (from ssp. of *annulata*).

Tribe Ficalbiini

Genus *Ingramia* Edwards*grjebinei* (Brunhes)

1977b:153 (♂*, ♀*, P*, L*; *Ficalbia*). Type-loc: near Gouloué River, Mayotte Isld., Comores (SSC). White 1980:145 (from *Ficalbia* (*Ingramia*)).

Tribe Hodgesiini

Genus *Hodgesia* Theobald*cuptopous* Theobald

cryptopus Edwards 1912. White 1980:143 (unjustified emend. of *cuptopous*).

Tribe Mansoniini

Genus *Coquillettidia* DyarSubgenus *Coquillettidia* Dyar

voltaensis (Danilov)

1982:26 (♀*; *Mansonia*). Type-loc: Boromo, Upper Volta (LU).

Tribe Orthopodomyiini

Genus *Orthopodomyia* Theobald*comorensis* Brunhes

1977a:145 (♂*, ♀*, P*, L*). Type-loc: near Dembeni, Mayotte Isld., Comores (SSC).

geberti Grjebine

White 1980:146 (from *nomen dubium* to valid species).

joyoni Brunhes

1977a:140 (♂*, ♀*, P*, L*). Type-loc: Grille, Grande Comore Isld., Comores (SSC).

Tribe Sabethini

Genus *Johnbelkinia* Zavortink

Johnbelkinia Zavortink 1979:18. Type-species: *Culex longipes* Fabricius.

leucopus (Dyar and Knab)

Zavortink 1979:39 (from genus *Trichoprosopon*).

longipes (Fabricius)

Zavortink 1979:35 (from genus *Trichoprosopon*).

trichopus Dyar 1919. Zavortink 1979:35 (from genus *Trichoprosopon*).

edwardsianus Lane and Cerqueira 1942. Zavortink 1979:35 (from genus *Trichoprosopon*; synonymy).

ulopus (Dyar and Knab)

Zavortink 1979:24 (from genus *Trichoprosopon*); from synonymy with *longipes*).

culicivora Dyar and Knab 1906. Zavortink 1979:25 (from genus *Trichoprosopon*; from synonymy with *longipes*).

Genus *Runchomyia* Theobald³

Runchomyia Theobald 1903. Zavortink 1979:12 (from subgenus of *Trichoprosopon*).

Subgenus *Ctenogoeldia* Edwards

Ctenogoeldia Edwards 1930. Zavortink 1979:12 (from subgenus of *Trichoprosopon*).

magna (Theobald)

Zavortink 1979:12 (from genus *Trichoprosopon*).

homotina Dyar and Knab 1906. Zavortink 1979:12 (from genus *Trichoprosopon*).

dicellaphora Howard, Dyar and Knab 1912 (1913). Zavortink 1979:12 (from genus *Trichoprosopon*).

walcotti (Lane and Cerqueira)

Zavortink 1979:12 (from genus *Trichoprosopon*).

Subgenus *Isostomyia* Coquillett

Isostomyia Coquillett 1906. Zavortink 1979:12 (from subgenus of *Trichoprosopon*).

espini (Martini)

Zavortink 1979:12 (from genus *Trichoprosopon*).

³ The lists of nominal species included in the genera *Runchomyia*, *Shannoniana* and *Trichoprosopon* given by Zavortink (1979:11-12) were intended to indicate generic reassignments only and did not address synonymy of specific names. Synonymizing of specific names should remain as in the Knight and Stone (1977) catalog (T.J. Zavortink, personal communication).

shropshirei Ludlow 1919. Zavortink 1979:12 (from genus *Trichoprosopon*).

lunata (Theobald)

Zavortink 1979:12 (from genus *Trichoprosopon*).

paranensis Brèthes

Zavortink 1979:12 (from genus *Trichoprosopon*).

perturbans (Williston)

Zavortink 1979:12 (from genus *Trichoprosopon*).

Subgenus *Runchomyia* Theobald

Runchomyia Theobald 1903. Zavortink 1979:12 (from subgenus *Trichoprosopon*).

cerqueirai (Stone)

Zavortink 1979:12 (from genus *Trichoprosopon*).

frontosa Theobald

Zavortink 1979:12 (from genus *Trichoprosopon*).

rapax Dyar and Knab 1906. Zavortink 1979:12 (from genus *Trichoprosopon*).

humboldti (Lane and Cerqueira)

Zavortink 1979:12 (from genus *Trichoprosopon*).

reversa (Lane and Cerqueira)

Zavortink 1979:12 (from genus *Trichoprosopon*).

theobaldi (Lane and Cerqueira)

Zavortink 1979:12 (from genus *Trichoprosopon*).

Genus *Sabethes* Robineau-Desvoidy

Subgenus *Sabethes* Robineau-Desvoidy

carrilloi Sutil O. and Pulido F.

1978:199 (♂*, P*, L*). Type-loc: Guaca, Municipio San Antonio de Caparo, Táchira, Venezuela (DERM).

Genus *Shannoniana* Lane and Cerqueira⁴

Shannoniana Lane and Cerqueira 1942. Zavortink 1979:11 (from subgenus of *Trichoprosopon*).

fluviatilis (Theobald)

Zavortink 1979:11 (from genus *Trichoprosopon*).

longipalpis Lutz 1905. Zavortink 1979:11 (from genus *Trichoprosopon*).

moralesi (Dyar and Knab)

Zavortink 1979:12 (from genus *Trichoprosopon*).

schedocyclia (Dyar and Knab)

Zavortink 1979:12 (from genus *Trichoprosopon*).

Genus *Topomyia* Leicester

Subgenus *Suaymyia* Thurman

apsarae Klein

1977:126 (♂*, ♀*). Type-loc: Stung Chral forest, Kompong Speu Prov., Cambodia (SSC).

rausai Miyagi 1980:178 (♂*, ♀, P*). Type-loc: Montible Subcolony, Iwahig, Palawan Isld., Philippines (USNM). Miyagi, Toma and Cabrera 1983:112 (synonymy).

⁴ See footnote 3.

Subgenus *Topomyia* Leicester*ankoris* Klein

1977:123 (♂*, ♀). Type-loc: Mont Bokor, km 15 of the route Kampot-Bokor, Kampot Prov., Cambodia (SSC).

cabrerai Miyagi, Toma and Rivera

1983:1 (♂*). Type-loc: Ilomavis, Mt. Apo, Mindanao, Philippines (NMST).

Genus *Trichoprosopon* Theobald⁵

Limamyia Lane and Cerqueira 1942. Zavortink 1979:11 (synonymy).

Vonplessenia Lane and Cerqueira 1942. Zavortink 1979:11 (synonymy).

andinum Leví-Castillo*brevipes* (Da Costa Lima)

Zavortink 1979:11 (from subgenus *Limamyia*).

castroi Lane and Cerqueira

Zavortink 1979:11 (from subgenus *Runchomyia*).

compressum Lutz

trichorries Dyar and Knab 1907

var. *mogilasium* (Dyar and Knab)

digitatum (Rondoni)

nivipes Theobald 1901

splendens Lutz 1904

wilsoni Ludlow 1918

⁵ Zavortink (1979:11) places 20 nominal species from the composite genus *Trichoprosopon* in his redefined genus *Trichoprosopon*. Unless otherwise indicated, these were listed by Knight and Stone (1977:315-316) as *Trichoprosopon* (*Trichoprosopon*). See also footnote 3.

subsplendens Martini 1931var. *townsendi* Stone*evansae* AntunesZavortink 1979:11 (from subgenus *Runchomyia*).*lampropus* (Howard, Dyar and Knab)Zavortink 1979:11 (from subgenus *Runchomyia*).*lanei* (Antunes)Zavortink 1979:11 (from subgenus *Runchomyia*).*obscurum* Lane and Cerqueira*pallidiventer* (Lutz)*simile* Lane and CerqueiraZavortink 1979:11 (from subgenus *Runchomyia*).*soaresi* Lane and Cerqueira*vonplesseni* (Dyar and Knab)Zavortink 1979:11 (from subgenus *Vonplessenia*).

Nomina Dubia

hyperleucum (Martini)Zavortink 1979:12 (type lost, inadequately described; from *Trichoprosopon* (*Runchomyia*)).*cotopaxense* Leví-CastilloZavortink 1979:11 (type probably non-existent; composite description of several species; from *Trichoprosopon* (*Runchomyia*)).Genus *Tripteroides* GilesSubgenus *Polylepidomyia* Theobald

Polylepidomyia Theobald 1905. Mattingly 1980:165 (from synonymy with subgenus *Rachionotomyia*). The following species are transferred from subgenus *Rachionotomyia*:

altivallis Bonne-Wepster
argentiventris (Theobald)
atripes (Skuse)
caledonicus (Edwards)
coheni Belkin
collessi Lee
digoeleensis Brug
floridensis Belkin
folicola Belkin
marksae Dobrotworsky
melanesiensis Belkin
microlepis (Edwards)
perplexus Peters
punctolateralis (Theobald)
rotumanus (Edwards)
solomonis (Edwards)
standfasti Peters
tasmaniensis (Strickland)

Subgenus *Rachionotomyia* Theobald

affinis (Edwards)

Mattingly 1980:168 (from subgenus *Tripteroides*).

caeruleocephala Theobald 1910, non Leicester 1908. Mattingly 1981:43 (from subgenus *Tripteroides*).

aranoides (Theobald)

szechuanensis Hsu 1964. Mattingly 1980:168 (from subgenus *Rachisoura*; synonymy).

fusca (Leicester 1908). Mattingly 1981:22 (lectotype design.).

ceylonensis (Theobald)

Mattingly 1981:26 (from synonymy with *aranoides*).

coonorensis Mattingly

1981:30 (♂*, ♀*, P*, L*). Type-loc: Sim's Park, Coonor, Madras State, India (USNM).

dofleini (Günther)

Mattingly 1980:168 (from subgenus *Tripteroides*).

edwardsi (Barraud)

Mattingly 1980:168 (from subgenus *Tripteroides*; lectotype design.).

nepenthis (Edwards)

Mattingly 1981:38 (from subgenus *Tripteroides*).

nepenthisimilis Mattingly

1981:41 (♂, ♀, P*, L*). Type-loc: Batang, Berjuntai (K. Selangor), Selangor, Malaysia (USNM).

rozeboomi Baisas and Ubaldo-Pagayon

Mattingly 1980:168 (from subgenus *Tripteroides*).

serratus (Barraud)

Mattingly 1981:32 (from variety of *aranoides*; lectotype design.).

tenax (De Meijere)

Mattingly 1981:33 (from synonymy of *aranoides*; lectotype design.).

Subgenus *Rachisoura* Theobald

obscurus Brug

Mattingly 1980:168 (from subgenus *Rachionotomyia*).

subobscurus Lee

Mattingly 1980:168 (from subgenus *Rachionotomyia*).

Subgenus *Tricholeptomyia* Dyar and Shannon

Tricholeptomyia Dyar and Shannon 1925. Mattingly 1980:164 (from synonymy with *Rachionotomyia*).

apoensis Baisas and Ubaldo-Pagayon

Mattingly 1980:168 (from subgenus *Tripteroides*).

barraudi Baisas and Ubaldo-Pagayon

Mattingly 1980:168 (from subgenus *Tripteroides*).

belkini Baisas and Ubaldo-Pagayon

Mattingly 1980:168 (from subgenus *Tripteroides*).

christophersi Baisas and Ubaldo-Pagayon

Mattingly 1980:168 (from subgenus *Tripteroides*).

delpilari Baisas and Ubaldo-Pagayon

Mattingly 1980:168 (from subgenus *Tripteroides*).

microcala (Dyar)

Mattingly 1980:168 (from subgenus *Tripteroides*).

nepenthicola (Banks)

Mattingly 1980:168 (from subgenus *Rachionotomyia*). Mattingly 1981:69 (lectotype design.).

mus (Dyar 1920). Mattingly 1981:67 (from subgenus *Rachionotomyia*).

roxasi Baisas and Ubaldo-Pagayon

Mattingly 1980:168 (from subgenus *Tripteroides*).

wernerii Baisas and Ubaldo-Pagayon

Mattingly 1980:168 (from subgenus *Tripteroides*).

Subgenus *Tripteroides* Giles*bambusa* (Yamada)*ssp. yaemamensis* Tanaka, Mizusawa and Saugstad

1979:481 (♂, ♀*). Type-loc: Mt. Banna, Ishigaki Isld., Ryukyus, Japan (NMST).

mabinii Baisas and Ubaldo-PagayonMattingly 1980:168 (from subgenus *Rachisoura*).*riverai* Miyagi, Toma and Tsukamoto

1983:5 (♂*, ♀*, P*, L*). Type-loc: Iwahig, Palawan Isld., Philippines (NMST).

Genus *Wyeomyia* TheobaldSubgenus *Dodecamyia* Dyar*Dodecamyia* Dyar 1918. Peyton et al. 1983:75 (from synonymy with *Wyeomyia*; includes *aphobema*).Subgenus *Wyeomyia* Theobald*trujilloi* Pulido F. and Sutil O.

1981:219 (♂*, P*, L*). Type-loc: Altamira, Municipio Altamira, Barinas, Venezuela (DERM).

Subgenus Uncertain

luederwaldti (Lane)Zavortink, 1979:12 (from *Trichoprosopon* (*Isostomyia*)).*nigricephala* Clastrier and Claustre

1978b:543 (♂*). Type-loc: Foret du Gallion, French Guyana (MNHP).

Tribe Uranotaeniini

Genus *Uranotaenia* Lynch ArribálzagaSubgenus *Pseudoficalbia* Theobald*belkini* Grjebine

1979:65 (L*). Type-loc: Manakara, Fianarantsoa Prov.,
Madagascar (SSC).

bosseri Grjebine

1979:57 (L*). Type-loc: Manakara, Fianarantsoa Prov.,
Madagascar (SSC).

brunhesi Grjebine

1979:61 (L*). Type-loc: Sainte-Luce, District Fort-Dauphin,
Madagascar (SSC).

damasei Grjebine

1979:70 (L*). Type-loc: Manakara, km 5, route Vohipeno,
Fianarantsoa Prov., Madagascar (SSC).

leiboensis Chu

1981:273 (L*). Type-loc: Leibo County, Sichuan Prov., China
(AMC).

nivipleura Leicester

loshanensis Wang and Feng 1965:206 (♂*, ♀, L*). Type-loc: Loshan,
Szechuan, China (MMC). Chu 1980:238 (synonymy, loashanensis
[sic]).

novobscura Barraud

ssp. *ryukyuana* Tanaka, Mizusawa and Saugstad

1979:465 (♂*, ♀*, L). Type-loc: Okinawa Isld., Ryukyus, Japan
(NMST).

Subgenus *Uranotaenia* Lynch Arribálzaga

mayottensis Brunhes

1977b:158 (♂*, ♀, P*, L*). Type-loc: Vahibé, route between Passamainti-Combani, Mayotte Isld., Comores (SSC).

pifanoi Cova García, Pulido F. and Escalante de Ugueto

1981:210 (♂*, P*, L*). Type-loc: La Toma, Municipio Salom, San Esteban River, Carabobo, Venezuela (DERM).

Subfamily Toxorhynchitinae

Genus *Toxorhynchites* Theobald

Subgenus *Lynchiella* Lahille

rutilus (Coquillett)

ssp. *septentrionalis* (Dyar and Knab)

herrickii Theobald 1906. Steffan 1980 (1981):381 (lectotype design.).

Subgenus *Toxorhynchites* Theobald

acaudatus (Theobald)

Steffan and White 1981:116 (lectotype design.).

amboinensis (Doleschall)

immisericors Walker 1859. Steffan and White 1981:118 (lectotype design.).

brevipalpis Theobald

Steffan and White 1981:117 (lectotype design.).

changbaiensis Su and Wang

1981:327 (♂*, ♀, P*, L*). Type-loc: Huang-song-pu forest area, Antu Xian, Jilin Prov., China (BMC).

coeruleus (Brug)

Steffan and White 1981:117 (lectotype design.).

edwardsi (Barraud)

Steffan and White 1981:117 (lectotype design.).

inornatus (Walker)

Steffan and White 1981:118 (lectotype design.).

kaimosi (Van Someren)

Steffan and White 1981:118 (lectotype design.).

leicesteri Theobald

Steffan and White 1981:118 (lectotype design.).

magnificus (Leicester)

Steffan and White 1981:119 (lectotype design.).

manicatus (Edwards)

ssp. *yamadai* Ouchi

Tanaka, Mizusawa and Saugstad 1979:494 (to subspecies of *manicatus*).

ssp. *yaeyamae* Bohart

Tanaka, Mizusawa and Saugstad 1979:496 (to subspecies of *manicatus*).

metallicus Theobald

Steffan and White 1981:119 (lectotype design.).

nairobiensis (Van Someren)

Steffan and White 1981:119 (lectotype design.).

nepenthicola Steffan and Evenhuis

1982:2 (♂*, ♀*, P*, L*). Type-loc: near Olsobip, Upper Fly River, Western District, Papua New Guinea (BBM).

nigripes (Edwards)

Steffan and White 1981:119 (lectotype design.).

quasiferox (Leicester)

Steffan and White 1981:120 (lectotype design.).

splendens (Wiedemann)

gilesii Theobald 1901. Steffan and White 1981:118 (lectotype design.).

Nomina Nuda

haddowi Gillett, *Anopheles (Cellia) gambiae* Species D

1975:366.

hamadryadis Cooling, *Aedes*

Lee, Hicks, Griffiths, Russell and Marks 1982:236 (manuscript name recalled by Cooling before publication; transferred from synonymy of *purpureus* to *nomen nudum*).

niansimbii Gillett, *Anopheles (Cellia) gambiae* Species D

1975:366.

perlisiensis Yong et al., *Anopheles (Cellia) balabacensis* ssp.

1983:613.

rabaiensis Lounibos, *Anopheles (Cellia)*

1979:25.

Type Depositories

- | | |
|------|--------------------------------------------------------------------------------------------------------------------------------|
| AMC. | Institute of Microbiology and Epidemiology, Academy of Medical Science, P.L.A., People's Republic of China. |
| BMC. | Department of Parasitology, Bethune Medical College, Jilin, People's Republic of China. |
| GMC. | Biology Department, Guiyang Medical College, People's Republic of China. |
| IMP. | E.I. Martsinovskiy Institute of Medical Parasitology and Tropical Medicine, Moscow, USSR. (= MTI. Moscow Tropical Institute?). |
| IPD. | Institute of Parasitic Diseases, Kweichow, People's Republic of China. |

REFERENCES CITED

- Beidas, M.F. and M.T. Gillies. 1980. The egg of *Anopheles (Cellia) culicifacies adenensis* Christophers. Mosq. Syst. 12:172-174.
- Berlin, O.G.W. and J.N. Belkin. 1980. Mosquito studies (Diptera, Culicidae) XXXVI. Subgenera *Aedinus*, *Tinolestes* and *Anoedioporpa* of *Culex*. Contrib. Am. Entomol. Inst. (Ann Arbor) 17(2):1-104.
- Brunhes, J. 1977a. Les moustiques de l'archipel des Comores I. - Inventaire, répartition et description de quatre espèces ou sous-espèces nouvelles. Cah. O.R.S.T.O.M. Ser. Entomol. Med. Parasitol. 15:131-152.
- Brunhes, J. 1977b. Les moustiques de l'archipel des Comores II. - Description de quatre espèces nouvelles ou peu connues. Répartition des membres du sous-genre *Skusia* dans l'océan Indien occidental. Affinités de la faune culicidienne des Comores. Cah. O.R.S.T.O.M. Ser. Entomol. Med. Parasitol. 15:153-170.
- Brunhes, J. 1982 (1983). Culicidés de Madagascar IX. Compléments à la description d'*Aedes (Diceromyia) grassei* Doucet, 1951 et description d'*Aedes (Diceromyia) sylvaticus* n.sp. (Diptères, Nématocères). Cah. O.R.S.T.O.M. Ser. Entomol. Med. Parasitol. 20:313-318.
- Chang Ho. 1965. Description of a mosquito *Aedes (Edwardsaedes) pingpaensis*, sp. nov. (In Chinese). Acta Parasitol. Sinica 2:397-403.
- Chen Han-Bin. 1980. Study on the *Culex vishnui* subgroup in China with discussions on the taxonomic status of *C. neovishnui* Lien, *C. permixtus* Hsieh & Liao and *C. cheni* Ho. (In Chinese). Acta Entomol. Sinica 23:434-440.
- Chen Han-Bin. 1981. A new species of *Culex* (Diptera: Culicidae). (In Chinese). Acta Entomol. Sinica 24:426-429.
- Chen Han-Bin. 1982. A new species of *Culex* from Guizhou, *Culex (Eumelanomyia) miaolingensis*, sp.nov. (In Chinese). Acta Zootaxonomica Sinica 7:312-316.
- Chu Feng-I. 1980. The synonymy, distribution and classification of Chinese *Uranotaenia* (Diptera: Culicidae). (In Chinese). Entomotaxonomia 2:237-245.
- Chu Feng-I. 1981. A new species of Chinese *Uranotaenia* (Diptera: Culicidae). (In Chinese). Entomotaxonomia 3:273-275.
- Clastrier, J. and J. Claustre. 1978a. *Culex (Carrollia) insigniforceps* n.sp. de la Guyane Française (Diptera, Culicidae). Nouv. Rev. Entomol. 8:359-362.
- Clastrier, J. and J. Claustre. 1978b. *Limatus martiali* Senevet et Abonnenc, 1939 et *Wyeomyia nigricephala* n.sp. (Diptera, Culicidae) de la Guyane Française. Ann. Parasitol. Hum. Comp. 53:539-546.

- Cornet, M., M. Valade and P.Y. Dieng. 1978. *Aedes (Stegomyia) neafricanus* un nouvelle espèce de moustique capturée au Sénégal Oriental (Diptera: Culicidae). Cah. O.R.S.T.O.M. Ser. Entomol. Med. Parasitol. 16:227-230.
- Cova García, P., J. Pulido F. and J.R. Amarista M. 1977. *Anopheles (Nyssorhynchus) deltaorinoquensis* n.sp. (Diptera, Culicidae) de Venezuela. Bol. Direcc. Malariol. Saneam. Ambient. 17:150-161.
- Cova García, P., J. Pulido F. and C. Escalante de Ugueto. 1977a. *Anopheles (Kerteszia) gonzalezrinconesi* n.sp. (Diptera, Culicidae) de Venezuela. Bol. Direcc. Malariol. Saneam. Ambient. 17:140-149.
- Cova García, P., J. Pulido F. and C. Escalante de Ugueto. 1977b. *Anopheles (Kerteszia) rollai*, nomen novum *Anopheles (Kerteszia) hilli* Cova García, 1976 (non *Anopheles hilli* Woodhill & Lee 1944). Bol. Direcc. Malariol. Saneam. Ambient. 17:241.
- Cova García, P., J. Pulido F. and C. Escalante de Ugueto. 1979. *Culex (Neoculex) johni* (Diptera, Culicidae) nueva especie de Venezuela. Bol. Direcc. Malariol. Saneam. Ambient. 19:21-28.
- Cova García, P., J. Pulido F. and C. Escalante de Ugueto. 1981. *Uranotaenia pifanoi* (Diptera, Culicidae) nueva especie de Venezuela. Bol. Direcc. Malariol. Saneam. Ambient. 21:210-218.
- Danilov, V.N. 1978. The first finding of *Aedes (Finlaya) versicolor* Barraud (Diptera, Culicidae) in the USSR, description of its female and larva of instar IV. (In Russian). Vestn. Zool. Kiev. (3):82-85.
- Danilov, V.N. 1979. Nomenclature, synonymy, differential diagnosis, and distribution of *Aedes (Ochlerotatus) albineus* Seguy (Diptera). (In Russian). Vestn. Zool. Kiev. (1):29-35. [Translation 1628 (T1628) Med. Zool. Dep. U.S. Nav. Med. Res. Unit No. 3 Cairo, Egypt.]
- Danilov, V.N. 1981a. On the mosquito fauna (Diptera: Culicidae) of the Ethiopian zoogeographical region. I. A subgenus of the genus *Aedes* new for the region. (In Russian). Med. Parazitol. Parazit. Bol. 50:86-87.
- Danilov, V.N. 1981b. On the identity of *Aedes (Ochlerotatus) simanini* Gutsevich with *Ae. (O.) niphadopsis* Dyar et Knab (Diptera, Culicidae). (In Russian). Vest. Zool. Kiev. (3):36-40.
- Danilov, V.N. 1982. Mosquito fauna (Diptera, Culicidae) of the Ethiopian zoogeographical region 2. A new species of *Mansonia (Coquillettidia)* and a key for adults of the genus *Mansonia*. (In Russian). Med. Parazitol. Parazit. Bolezn. 60:26-30.
- Danilov, V.N. and V.V. Filippova. 1978. A new species of mosquito, *Aedes (Stegomyia) sibiricus* sp.n. (Culicidae). (In Russian). Parazitologiya (Leningr.) 12:170-176.
- Danilov, V.N., N. Ya. Markovich and A.M. Proskuryakova. 1978. A new species of mosquito, *Aedes (Ochlerotatus) sergievi* sp.n. (In Russian). Parazitologiya (Leningr.) 12:44-49.

- Danilov, V.N. and V.I. Stupin. 1982. A new species of the mosquito genus *Aedes* Meigen (Diptera, Culicidae) from southern Siberia and Priamuria. (In Russian). Entomol. Obozr. 61:824-829. [Entomological Review (Translation) 61(4):120-125.]
- Dubitsky, A.M. and N.D. Deshevykh. 1978. A new species of mosquito *Aedes* (*Ochlerotatus*) *gutzevichi* sp.n. from Central Asia (Culicidae). (In Russian). Parazitologiya (Leningr.) 12:177-182.
- Faran, M.E. 1979. *Anopheles* (*Nyssorhynchus*) *trinkae*, a new species in the Albimanus section (Diptera: Culicidae). Mosq. Syst. 11:26-39.
- Faran, M.E. 1980. Mosquito studies (Diptera, Culicidae) XXXIV. A revision of the Albimanus Section of the subgenus *Nyssorhynchus* of *Anopheles*. Contrib. Am. Entomol. Inst. (Ann Arbor) 15(7):1-215.
- Faran, M.E. 1981. Synonymy of *Anopheles* (*Nyssorhynchus*) *northeastensis* with *An. (Nys.) evansi*, with a description of the male genitalia of the lectotype of *An. (Nys.) evansi* (Diptera: Culicidae). Mosq. Syst. 13:86-91.
- Faran, M.E. and K.J. Linthicum. 1981. A handbook of the Amazonian species of *Anopheles* (*Nyssorhynchus*) (Diptera: Culicidae). Mosq. Syst. 13:1-81.
- Gillett, J.D. 1975. The *Anopheles gambiae* complex; naming the sibling species. Trans. R. Soc. Trop. Med. Hyg. 69:366-367.
- Grjebine, A. 1979. Les moustiques des *Nepenthes* de Madagascar. Espèces nouvelles du genre *Uranotaenia*. (Diptera, Culicidae). Ann. Soc. Entomol. France (N.S.) 15:53-74.
- Haga, J. 1930. Tabellen voor determinatie der in Nederlandsch-Oost-Indië voorkomende Anophelinen. Geneesk-Tijdschr. Ned.-Ind. 70:363-382.
- Harbach, R.E., E.L. Peyton and W.L. Jakob. 1983 (1984). Synonymy of *Culex* (*Culex*) *oswaldoi* with *Culex* (*Culex*) *maxi* (Diptera, Culicidae). Mosq. Syst. 15:310-317.
- Harrison, B.A. 1980. Medical entomology studies - XIII. The Myzomyia Series of *Anopheles* (*Cellia*) in Thailand, with emphasis on intra-interspecific variations (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Ann Arbor) 17(4):1-195.
- Huang, Y.-M. 1978. Redescription and subgeneric position of *Aedes meronephada* (Dyar and Shannon) with notes on the subgenus *Diceromyia* (Diptera: Culicidae). Mosq. Syst. 10:334-350.
- Huang, Y.-M. 1979a. Medical entomology studies - XI. The subgenus *Stegomyia* of *Aedes* in the Oriental region with keys to the species (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Ann Arbor) 15(6):1-79.
- Huang, Y.-M. 1979b. *Aedes* (*Stegomyia*) *simpsoni* complex in the Ethiopian region with lectotype designation for *simpsoni* (Theobald) (Diptera:

Culicidae). Mosq. Syst. 11:221-234.

- Huang, Y.-M. 1981. A redescription of *Aedes (Stegomyia) calceatus* Edwards and description of a new Afrotropical species, *Aedes (Stegomyia) ledgeri* (Diptera: Culicidae). Mosq. Syst. 13:92-113.
- Huang, Y.-M. and J.C. Hitchcock. 1980. Medical entomology studies - XII. A revision of the *Aedes scutellaris* group of Tonga (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Ann Arbor) 17(3):1-107.
- Kamimura, K. 1966. Comments on the distribution and taxonomy of *Anopheles* in Japan. (In Japanese). Abstr. Speeches 21st Annu. Meet. West. Jap. Br., Jap. Soc. Sanit. Zool., p. 8.
- Kanda, T. and Y. Oguma. 1978. *Anopheles engarensis*, a new species related to *sinensis* from Hokkaido Island, Japan. Mosq. Syst. 10:45-52.
- Klein, J.-M. 1977. Deux nouvelles espèces de *Topomyia* du Cambodge (Diptera, Culicidae). Cah. O.R.S.T.O.M. Ser. Entomol. Med. Parasitol. 15:123-129.
- Klein, J.-M., F. Rivière and Y. Séchan. 1983 (1984). Une nouvelle espèce de moustique (Diptera: Culicidae) des îles Marquises (Polynésie Française): *Culex (Culex) toviensis* n.sp. Description de la larve et de la nymphe. Cah. O.R.S.T.O.M. Ser. Entomol. Med. Parasitol. 21:71-76.
- Knight, K.L. 1978a. A new *Aedes (Finlaya)* mosquito from Thailand. Mosq. Syst. 10:106-116.
- Knight, K.L. 1978b. Supplement to a catalog of the mosquitoes of the world (Diptera: Culicidae). Thomas Say Found., Entomol. Soc. Am., vol. 6 (Suppl.), 107 p.
- Knight, K.L. and A. Stone. 1977. A catalog of the mosquitoes of the world (Diptera: Culicidae). 2nd edition. Thomas Say Found., Entomol. Soc. Am., vol. 6, xi+ 611 p.
- Kuchartshuk, L.P. 1973. New species of mosquito from the genus *Aedes* (Diptera, Culicidae). pp. 98-101. In: New and little-known species of Siberian fauna. Part 7. (In Russian). Academy of Sciences, USSR, Siberian Branch, Institute of Biology, Publishing house "Nauka", Novosibirsk.
- Lee, D.J., M.M. Hicks, M. Griffiths, R.C. Russell and E.N. Marks. 1982. The Culicidae of the Australasian region. Volume 2. Commonw. Inst. Health Entomol. Mongr. Ser. 2, Aust. Gov. Publ. Serv., Canberra. 286 p.
- Lounibos, L.P. 1979. Mosquitoes occurring in the axils of *Pandanus ravaiensis* Rendle on the Kenya coast. Cah. O.R.S.T.O.M. Ser. Entomol. Med. Parasitol. 17:25-29.
- Ma Sufang. 1981. A new species of *Anopheles (Anopheles)* from China. (In Chinese). Entomotaxonomia 3:277-279.
- Maffi, M. and J.A. Tenorio. 1977. *Culex (Culex) banksensis*, a new species of

- mosquito (Diptera: Culicidae) from Banks Islands, New Hebrides. Pac. Insects 17:503-509.
- Mattingly, P.F. 1980. An internal reclassification of the genus *Tripteroides* with particular reference to the Australian subgenera. Mosq. Syst. 12:164-171.
- Mattingly, P.F. 1981. Medical entomology studies - XIV. The subgenera *Rachionotomyia*, *Tricholeptomyia* and *Tripteroides* (Mabini Group) of genus *Tripteroides* in the Oriental region (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Ann Arbor) 17(5):1-147.
- Mattos, S. da Silva, A. de Silveira Guedes and S.H. Xavier. 1978. Uma especie nova de *Culex* (*Culex*) que se cria em umbelifera (Diptera, Culicidae). Rev. Brasil. Biol. 38:31-35.
- Meng Ching-Hua. 1981. A proposed system of classification of *Aedes chrysolineatus* and related species. (In Chinese). Entomotaxonomia 3:243-254.
- Meng Qinghua and Chen Han-Bin. 1980. Arguments on the taxonomic positions of six species of *Culex* from China. (In Chinese). Entomotaxonomia 2:161-164.
- Mezenev, N.P. 1980. A possible identity of *Aedes leucomelas* Meigen, 1804 and *A. implicatus* Vockeroth, 1954 (Culicidae). (In Russian). Parazitologiya (Leningr.) 14:206-209.
- Miyagi, I. 1980. *Topomyia* (*Suaymyia*) *rausai*, a new species of mosquito from the Philippines (Diptera: Culicidae). J. Med. Entomol. 17:178-181.
- Miyagi, I. and T. Toma. 1980 (1981). A new species of *Aedes* (*Stegomyia*) from Daito Islands, Ryukyu, Japan (Diptera: Culicidae). Mosq. Syst. 12:428-440.
- Miyagi, I., T. Toma and B.D. Cabrera. 1983. Synonyms of *Topomyia rausai* with *Topomyia apsarae*, with description of the larva (Diptera: Culicidae). Mosq. Syst. 15:111-116.
- Miyagi, I., T. Toma and D.G. Rivera. 1983. *Topomyia* (*Topomyia*) *cabrerae*, a new species from the Philippines (Diptera: Culicidae). Mosq. Syst. 15:1-4.
- Miyagi, I., T. Toma and M. Tsukamoto. 1983. Description of a new species, *Tripteroides* (*Tripteroides*) *riverai* from the Philippines (Diptera: Culicidae). Mosq. Syst. 15:5-17.
- Peus, F. 1972. Uber das subgenus *Aedes* sensu stricto in Deutschland (Diptera, Culicidae). Z. Angew. Entomol. 72:177-194.
- Peyton, E.L. and B.A. Harrison. 1979. *Anopheles* (*Cellia*) *dirus*, a new species of the Leucosphyrus Group from Thailand (Diptera: Culicidae). Mosq. Syst. 11:40-52.

- Peyton, E.L. and B.A. Harrison. 1980. *Anopheles (Cellia) takasagoensis* Morishita 1946, an additional species in the Balabacensis Complex of Southeast Asia (Diptera: Culicidae). Mosq. Syst. 12:335-347.
- Peyton, E.L., D.R. Roberts, F.P. Pinheiro, R. Vargas and F. Balderama. 1983. Mosquito collections from a remote unstudied area of southeastern Bolivia. Mosq. Syst. 15:61-89.
- Pulido F., J. and E. Sutil O. 1981. *Wyeomyia (Wyeomyia) trujilloi* (Diptera, Culicidae) nueva especie de Venezuela. Bol. Direcc. Malariol. Saneam. Ambient. 21:219-226.
- Ramos, H. da C. and H. Ribiero. 1981 (1982). Research on the mosquitoes of Angola (Diptera: Culicidae) XII - Description of *Culex (Culex) pajoti* sp.nov. Mosq. Syst. 13:176-190.
- Ravaonjanahary, C. 1978. Description complémentaire d'*Aedes (Diceromyia) tiptoni* Grjebine, 1953. Cah. O.R.S.T.O.M. Ser. Entomol. Med. Parasitol. 16:99-103.
- Ravaonjanahary, C. and J. Brunhes. 1977. Un nouvel *Aedes* du genre *Skusea* découvert à Madagascar: *Aedes (Skusea) moucheti* sp.n. Cah. O.R.S.T.O.M. Ser. Entomol. Med. Parasitol. 15:213-215.
- Reinert, J.F. 1979. A description of *Isoaedes*, a new subgenus of *Aedes* Meigen, and its type-species, *Ae. (Isa.) cavaticus* new species (Diptera: Culicidae). Mosq. Syst. 11:144-162.
- Reinert, J.F. 1981. Medical entomology studies - XV. A revision of the subgenus *Paraedes* of the genus *Aedes* (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Ann Arbor) 18(4):1-91.
- Reinert, J.F. 1982. *Belkinus*, a new subgenus of *Aedes* and a description of *Ae. (Blk.) aurotaeniatus* Edwards (Diptera: Culicidae). Mosq. Syst. 14:101-121.
- Reuben, R. and S.G. Suguna. 1983. Morphological differences between sibling species of the taxon *Anopheles subpictus* Grassi in India, with notes on relationships with known forms. Mosq. Syst. 15:117-126.
- Ribiero, H., H. da Cunha Ramos, R. Antunes Capela and C. Alves Pires. 1977. Research on the mosquitoes of Portugal (Diptera, Culicidae) III - Further five new mosquito records. Garcia de Orta, Sér. Zool. 6:51-60, 6 pl.
- Ribeiro, H., H. da Cunha Ramos, C.A. Pires and R.A. Capela. 1979. Description and biometric study of *Anopheles (Cellia) quadriannulatus davidsoni* ssp.n., a seventh member of the *Anopheles gambiae* Giles complex (Diptera, Culicidae) endemic to the Cape Verde archipelago. Garcia de Orta, Sér. Zool. 8:75-88.
- Rodhain, F. and A. Boutonnier. 1982a (1983a). Description d'un nouvel *Aedes* endémique de Madagascar: *Ae. (Diceromyia) coulangesi* nova species. Arch. Inst. Pasteur Madagascar 49:193-196.

- Rodhain, F. and A. Boutonnier. 1982b (1983b). Description complémentaire d'*Aedes madagascarensis* Van Someren 1949. Arch. Inst. Pasteur Madagascar 49:197-203.
- Rodhain, F. and A. Boutonnier. 1983. Description d'un nouvel *Aedes* du sous-genre *Ochlerotatus* (Diptera: Culicidae): *Aedes ambreensis* nova species et considérations générales sur les femelles de sous-genre *Ochlerotatus* dans la région afro-tropicale. Bull. Soc. Pathol. Exot. 76:825-833.
- Sasa, M. and K. Kamimura. 1971. Index and consideration on taxonomy of the Japanese mosquitoes, p. 1-47 (In Japanese). In: M. Sasa (ed.), Progress in medical zoology I. Gakujutsusho Shuppankai, Tokyo.
- Sirivanakarn, S. 1978. Revalidation of *Culex (Melanoconion) invocator* Pazos with a redescription of adults and illustration of male genitalia (Diptera: Culicidae). Mosq. Syst. 10:239-245.
- Sirivanakarn, S. 1979. A new species of *Culex (Melanoconion)* from Bolivia and Ecuador (Diptera: Culicidae). Mosq. Syst. 11:135-138.
- Sirivanakarn, S. 1982 (1983). A review of the systematics and a proposed scheme of internal classification of the New World subgenus *Melanoconion* of *Culex* (Diptera: Culicidae). Mosq. Syst. 14:265-333.
- Sirivanakarn, S. and J.N. Belkin. 1980. The identity of *Culex (Melanoconion) taeniopus* Dyar and Knab and related species with notes on the synonymy and description of a new species (Diptera: Culicidae). Mosq. Syst. 12:7-24.
- Sirivanakarn, S. and N. Dégaillier. 1981 (1982). Redescription of *Culex (Melanoconion) portesi* Sénevet & Abonnenc, 1941, with notes on synonymy (Diptera: Culicidae). Mosq. Syst. 13:153-167.
- Sirivanakarn, S. and P. Galindo. 1980. *Culex (Melanoconion) adamesi*, a new species from Panama (Diptera, Culicidae). Mosq. Syst. 12:25-34.
- Sirivanakarn, S. and W.L. Jakob. 1979. A new species of *Culex (Melanoconion)* from southern Brazil (Diptera: Culicidae). Mosq. Syst. 11:139-143.
- Sirivanakarn, S. and W.L. Jakob. 1981 (1982). *Culex (Melanoconion) sacchettae*, a new species from the state of Sao Paulo, Brazil (Diptera: Culicidae). Mosq. Syst. 13:191-194.
- Steffan, W.A. 1979. New *Culex (Acallyntrum)* from the Papuan subregion (Diptera: Culicidae). J. Med. Entomol. 16:133-139.
- Steffan, W.A. 1980 (1981). The type-specimens of *Toxorhynchites* (Diptera: Culicidae) at the National Museum of Natural History. Mosq. Syst. 12:379-385.
- Steffan, W.A. and N.L. Evenhuis. 1982. A new species of *Toxorhynchites* from Papua New Guinea (Diptera: Culicidae). Mosq. Syst. 14:1-13.
- Steffan, W.A. and G.B. White. 1981. The type specimens of *Toxorhynchites*

- (Diptera: Culicidae) at the British Museum (Natural History) and Oxford University. Mosq. Syst. 13:114-123.
- Su Long and Wang Cai. 1981. A new species of the genus *Toxorhynchites* Theobald (Diptera: Culicidae). (In Chinese). Acta Entomol. Sinica 24:327-331.
- Su Long, Wang Cai and Li Fang. 1978. A new species of *Aedes*, *Aedes* (*Edwardsaedes*) *antuensis* sp.nov. (In Chinese). Acta Entomol. Sinica 21:439-444.
- Sutil O., E. and J. Pulido F. 1978. *Sabethes* (*Sabethes*) *carrilloi* sp.n. de Venezuela. Bol. Direcc. Malariol. Saneam. Ambient. 18:199-204.
- Tanaka, K., K. Mizusawa and E.S. Saugstad. 1979. A revision of the adult and larval mosquitoes of Japan (including the Ryukyu Archipelago and the Ogasawara islands) and Korea (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Ann Arbor) 16:1-987.
- Tanaka, K., E.S. Saugstad and K. Mizusawa. 1975. Mosquitoes of the Ryukyu Archipelago (Diptera: Culicidae). Mosq. Syst. 7:207-233.
- Vargas, D.L. 1979. *Anopheles* (*Anopheles*) *veruslanei* Vargas, n.sp. (Diptera: Culicidae). Gac. Med. Mex. 115:87-88.
- Wang Hsing-Hsiang and Feng Chung-Ying. 1965. A new mosquito, *Uranotaenia loshanensis* sp.nov., with notes on the adult male and larva of *U. hebes* Barraud. (In Chinese). Acta Zootaxonomica Sinica 2:206-210.
- Ward, R.A. 1979. Corrections in the nomenclature of three anophelines (Diptera: Culicidae). Mosq. Syst. 11:130-134.
- White, G.B. 1978. Systematic reappraisal of the *Anopheles maculipennis* complex. Mosq. Syst. 10:13-44.
- White, G.B. 1980. Family Culicidae, p. 114-148. In: R.W. Crosskey, ed. Catalogue of the Diptera of the Afrotropical region. British Museum (Natural History), London.
- Yong, H.S., W.H. Cheong, G.L. Chiang, S.S. Dhaliwal, K.P. Loong and R. Sarjan. Biochemical genetic relationship of three taxa of the malarial mosquito *Anopheles balabacensis* complex. Comp. Biochem. Physiol. 76B:611-613.
- Zavortink, T.J. 1979. Mosquito studies (Diptera, Culicidae) XXXV. The new sabethine genus *Johnbelkinia* and a preliminary reclassification of the composite genus *Trichoprosopon*. Contrib. Am. Entomol. Inst. (Ann Arbor) 17(1):1-61.

ADDENDUM

After this manuscript was in press, several additional changes in synonymy, etc. were brought to my attention. Rather than submit an additional note for the next number of *Mosquito Systematics*, an Addendum has been prepared.

Genus *Anopheles* Meigen, Subgenus *Cellia* Theobald

cinereus Theobald

hispaniola Theobald 1903. Dahl and White 1978:392 (synonymy).

superpictus Grassi

atheniensis Cardamatis 1931. Dahl and White 1978:392 (synonymy).

Genus *Aedes* Meigen

Subgenus *Aedes* Meigen

hemiteus Dyar

Bohart and Washino 1978:49 (from synonymy with *cinereus*).

Subgenus *Finlaya* Edwards

nipponicus La Casse and Yamaguti

nippononiveus Sasa and Nakahashi 1952. Nakata 1962:51 (synonymy).

Subgenus *Ochlerotatus* Lynch Arribalzaga

cataphylla Dyar

rostochiensis Martini 1920. Dahl and White 1978:392 (synonymy).

Subgenus *Rusticoides* Shevchenko and Prudkina

refiki Medchid

stampari Apfelbeck 1929. Dahl and White 1978:392 (synonymy).

Genus *Culiseta* Felt, Subgenus *Culicella* Felt

minnesotae Barr

Wood, Dang and Ellis 1979:306 (from subspecies of *silvestris*).

morsitans (Theobald)

dyari Coquillett 1902. Wood, Dang and Ellis 1979:309 (from subspecies of *morsitans* to synonymy).

ochroptera (Peus)

Dahl and White 1978:394 (from subspecies of *silvestris*).

Nomina Dubia

silvestris (Shinagarev)

Dahl and White 1978:394.

Nomina Nuda

honjimaensis Sasa et al., *Culex* 1947:153 [not listed by Knight and Stone (1977) or Knight (1978b)].

koryoensis Ogasawara, *Megarhinus aurifluus* var. 1939:242 [not listed by Knight and Stone (1977) or Knight (1978b)].

REFERENCES CITED

- Bohart, R.M. and R.K. Washino. 1978. Mosquitoes of California (3rd edition). Div. Agric. Univ. Calif. Berkeley, Priced Publ. 4084, 153 pp.
- Dahl, C. and G.B. White. 1978. Culicidae, pp. 390-395. In: J. Illes (ed.). Limnofauna Europaea (2nd edition). Gustav Fischer Verlag, Stuttgart and New York and Swets Zeitlinger B.V., Amsterdam.
- Nakata, G. 1962. Taxonomic and ecological studies on Japanese mosquitoes. (In Japanese). Sanit. Injur. Insects, Kyoto 6:43-173.
- Ogasawara, H. 1939. On the genus *Megarhinus* in Japan, with description of a new variety. (In Japanese). Entomol World, Tokyo 7:240-244.
- Sasa, M., Y. Nakahara, N. Ushiroku, H. Hashimoto, A. Uno, T. Ogino, T. Miyachi, F. Yokomizo, S. Koyama, A. Akagi, K. Yamaguchi, C. Saito and H. Kumazawa. 1947. Studies on mosquitoes (7). Species of lowlands and mountains, observations in the Okayama district. (In Japanese). Med. Biol., Tokyo 11:152-154.
- Wood, D.M., P.T. Dang and R.A. Ellis. 1979. The mosquitoes of Canada (Diptera: Culicidae). In: The insects and arachnids of Canada. Part 6. Biosystematics Res. Inst., Canada Dep. Agric. Publ. 1686, 390 pp.